

A REVISION OF EPISCHOENUS C.B.Cl.

By

MARGARET R. LEVYNS.
(University of Cape Town.)

INTRODUCTION.

In 1895 C. B. Clarke founded the monotypic genus *Epischoenus* for a species, *E. quadrangularis*, which had been first assigned to *Schoenus* by O. Boeckeler in 1874. The significant differences between the spikelet of this new genus and that of *Schoenus* were two in number: (a) in *Epischoenus* a single bisexual floret occurred above two functionally male, whereas in *Schoenus* two or three bisexual florets were found below the male, and (b) in *Epischoenus* a thickened prolongation of the axis developed above the bisexual floret, ultimately curving round the fruit, whereas in *Schoenus* a similarly thickened and elongated part of the axis occurred between the bisexual florets. As was pointed out in a previous publication (Levyms 1947), Clarke appears not to have seen the fruit of *Epischoenus quadrangularis* and described the nut of another species, *Epischoenus adnatus*, easily confused with it and also occurring on Table Mountain. In essential features the definition of *Epischoenus* remains as given by Clarke. Naturally a few emendations are necessary owing to the increased knowledge of the genus. These have been incorporated in the description given later.

In 1941 a second species, *E. gracilis*, was described and in 1947 three more were added, *E. adnatus*, *E. villosus* and *E. eriophorus*, the last of which species is now known to have been described by C. B. Clarke in 1900 as *Tetraria lucida*. In the present revision of the genus two new species are added and two new combinations made. *Tetraria gracilis* Turrill also belongs to this genus. The epithet *gracilis* has been used in *Epischoenus* for a different species and therefore is not available. *T. gracilis* Turrill is, however, synonymous with *Epischoenus adnatus* Levyms and a new name is unnecessary. The total number of species is therefore eight but it is likely that new species await discovery. Cyperaceae is rarely a popular family with collectors and it is significant that of the 105 specimens of *Epischoenus* in the Bolus Herbarium, 86 were collected by one person, Miss E. Esterhuysen. She, by her enthusiastic exploration of the high mountains of southern Africa, has added greatly to our knowledge of the flora.

One of the problems facing the monographer of this genus, is that until in fruit there is little guide from external appearance as to the age of the spikelet. A spikelet which looks mature may contain rudimentary florets and the identification of the species in such cases is difficult, sometimes impossible, for the most helpful characters in making a diagnosis are those of the bisexual floret and the fruit. Many of the South African Cyperaceae become more conspicuous at the time of flowering when the stamens and style branches protrude. This is true of *Epischoenus*. It is remarkable that few herbarium specimens have been collected at this stage of development. An observation made by the author on two species, *E. lucidus* and *E. dregeanus*, may account for this. The florets of these species open just before sunrise and for a few hours their large yellow stamens and glistening white style branches make them conspicuous. Long before midday these organs have started to wither and the plant assumes its normal rather drab appearance. As few botanists start their activities at dawn, this phenomenon, if it be general in the genus, may account in part for its neglect by the average collector.

HABITAT AND DISTRIBUTION.

All the species of *Epischoenus* are moisture-loving plants, and in this respect contrast strikingly with the closely allied but much larger genus *Tetraria* where the majority of the species grow in dry places. Given a suitable habitat, *Epischoenus* may occur from a little above sea-level to an altitude in the neighbourhood of 1,850 metres. An examination of the existing records makes it clear that *Epischoenus* has a marked preference for high altitudes. Every one of its species is capable of reaching an altitude of at least 1,500 metres.

In spite of the imperfections of the record in this somewhat neglected genus, it is clear from the pattern of distribution that it belongs to the Cape Flora (Maps 1—3). The greatest concentration of species is to be found in the combined divisions of Tulbagh and Worcester, where all eight species occur. The neighbouring divisions of Paarl and Stellenbosch come next with seven species. It is probably more than a coincidence that in this region where the two principal mountain systems of the southern Cape Province meet, there should be a high concentration of species in those taxa which are predominantly montane in distribution. If the Cape Flora be considered as a whole, then the area of concentration of its species is in the more southerly Caledon Division, but in the taxa, where a large proportion of the species grow at high altitudes, the area of concentration tends to shift further to the north. This phenomenon is clearly brought out in the large genus *Muraltia*, where there are two



MAPS 1—3.
In all the maps the stippled areas represent mountains.

subgenera. One, *Psilocladus*, is predominantly montane, the other, *Muraltia*, has the majority of its species in the lowlands. The difference in the region of concentration of species is striking, for in the subgenus *Psiloclada* the highest number of species occurs in the Worcester-Tulbagh area, while in the subgenus *Muraltia* it is in the Caledon Division. When more is known about the flora of the higher mountains in southern Africa this phenomenon may be found to be of general occurrence.

EPISCHOENUS.

C.B.Cl. Dur. & Schinz Conspect. Fl. Afr. V, p. 657 (1895).

Tufted perennials, often with the leaves reduced to sheaths, usually mahogany red at the base. Spikelets compressed, the bracts more or less 2-ranked, cymose (Fig. 1 E). Empty bracts at the base of the spikelet

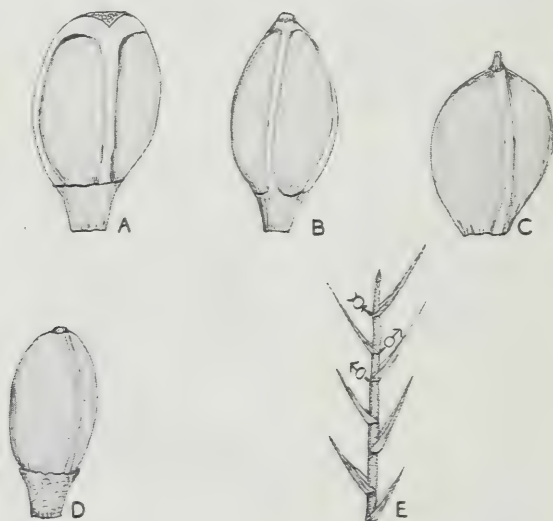


FIG. 1.—A. Fruit of *E. quadrangularis*. $\times 10$.

B. Fruit of *E. villosus*. $\times 10$.

C. Fruit of *E. adnatus*. $\times 10$.

D. Fruit of *E. gracilis*. $\times 10$.

E. Diagram of the spikelet in *Epischoenus*. In a few species the prolongation of the axis beyond the bisexual floret is adnate to the bract.

3—12, followed by 1—4 bracts with functionally male florets with or without an abortive gynoecium, finally one bisexual floret. Axis of the spikelet produced beyond the bisexual floret, bearing one or more sterile

bracts at its tip, rarely the lowest of these with a male floret: the prolongation of the axis free from or adnate to the bract at its base, usually becoming curved and cartilaginous as the fruit develops. Hypogynous bristles rudimentary or lacking. Stamens 3, the anthers linear with a sterile linear-lanceolate tip. Style branches 3. Fruit stipitate or sessile, sometimes with a cup-like disc at its base.

KEY TO THE SPECIES.

- A. Lamina of the leaves, when present, and flowering stems much compressed: spikelets glabrous. 7. *complanatus*
- A. Lamina of the leaves often lacking, if present then not laterally compressed: flowering stems terete or angled, rarely compressed, but if so then the bracts of the spikelet with an apical tuft of woolly hairs.
 - B. Bracts of the spikelet with long weak hairs either at the apex or along the margin.
 - C. Supra-floral axis free from its basal bract: spikelet about 9 mm. long 2. *villosus*
 - C. Supra-floral axis shortly adnate to its basal bract: spikelet about 15 mm. long 6. *lucidus*
 - B. Bracts of the spikelet glabrous.
 - D. Supra-floral axis free from its basal bract.
 - E. Curly grass-like leaves present: fruit covered with prominent tubercles or ridges 8. *cernuus*
 - E. Leaves usually without a lamina but if present then neither grass-like nor curly.
 - F. Ovary and fruit seated on a conspicuous cup-like disc: fruit somewhat narrowed towards the apex and crowned with the small hardened style base 3. *gracilis*
 - F. Ovary and fruit stipitate, without a cup-like disc, not narrowing towards the apex: the fruit terminated by a broad, flat, non-shining top 1. *quadrangularis*
 - D. Supra-floral axis adnate to its basal bract.
 - G. Stems rather rigid: fruit minutely tuberculate in the upper part, rough near the base 4. *dregeanus*
 - G. Stems not rigid: fruit smooth and shining throughout 5. *adnatus*

1. ***E. quadrangularis*** C.B.Cl. Dur. & Schinz Conspect. Fl. Afr. V, p. 657 (1895), Fl. Cap. VII, p. 273 (1898). Levyns in Adamson & Salter, Fl. Cap. Penin., p. 121 (1950). *Schoenus quadrangularis* Boeck. in Linnaea 38, p. 274 (1874).

A perennial, 30—75 cm. high. Leaf sheaths clasping the bases of the flowering stems: lamina usually lacking. Flowering stems often grooved and 4-angled below the inflorescence, occasionally more or less terete, bearing near the apex two stiff, dull brown bracts partly concealing the spikelets. Spikelets few to several, about 10 mm. long, linear, compressed, dark brown, sterile bracts 4—8, somewhat acute; male florets 1—4; supra-floral axis free from the bract. Ovary with a large opaque cap. Fruit stipitate, 3-angled, with conspicuous ribs running down the edges,

pale brown, shining, with a characteristic dark, triangular, non-shining somewhat flattened area at the apex. (Fig. 1 A.)

ISOTYPE. Burchell 557 (Kew).

HABITAT. Damp places at altitudes from a little above sea-level to 1,670 metres.

NOTE. Esterhuysen 17013, collected on the Langeberg near Riversdale, has abortive fruits with peculiar longitudinal ribs between the main ribs. The young ovary is typical of this species and without fully formed fruits it would be rash to create a new species. There are four male florets in the majority of the spikelets, a larger number than is usually present in *E. quadrangularis*.

CERES. Schurffteberg Peak: Esterhuysen 14716. Michells Pass: Stokoe. Witels Kloof: Esterhuysen 21854, 26329.

WORCESTER. Fonteintjiesberg: Esterhuysen 10975. Keeromsberg: Esterhuysen 10156. Waaihoek Mountain: Esterhuysen 8295, 22672.

PAARL. Wemmershoek Mountains: Esterhuysen 9064.

STELLENBOSCH. Victoria Peak: Esterhuysen 17578. Guardian Peak: Esterhuysen 11995.

CAPE. Orange Kloof: Levyns 6370. Table Mountain: Levyns 7027, 7596; Esterhuysen 379, 720, 4899, 16810, 17421, 26572, 26660, 26665, 26666. Kirstenbosch: Esterhuysen 12534. Devils Peak: Esterhuysen 10043.

CALEDON. Wilde Paardeberg: Stokoe 2795. Greyton, Rivier Zonder Einde Mountains: Esterhuysen 20794. Betty's Bay: Parker 4515. Palmiet River Mouth: Esterhuysen 12550; Levyns 8157, 9376. Klein River Mountains: Esterhuysen 2916. Houw Hoek: Schlechter 7402.

SWELLENDAM. Langeberg near Strawberry Hill: Esterhuysen 10402, 10497. Swellendam Mountain: Esterhuysen 4797.

RIVERSDALE. Langeberg: Esterhuysen 17013.

LAINGSBURG. Anysberg: Esterhuysen 17084.

LADISMITH. Klein Swartberg: Levyns 9112. Seven Weeks Poort: Esterhuysen 24805.

GEORGE. Montagu Pass: Fourcade 6472; Esterhuysen 10864; Levyns 10502. George: Levyns 10575.

UNIONDALE. Near Joubertina: Esterhuysen 6861, 16394, 27308. Kouga Mountains: Esterhuysen 10781.

HUMANSDORP. Witte Els Bosch: Esterhuysen 6771.

ALBANY. Grahamstown: Rhodes University, 2910, 3101.

2. *E. villosus* Levyns Jour. S. Af. Bot. XIII, p. 56, Fig. 2 E—G (1947).

A tufted perennial up to 90 cm. high. Leaves reduced to sheaths, often villous when young. Flowering stems terete, slender or somewhat

stout, bearing towards the apex 2 or 3 erect, villosa-ciliate bracts exceeding in length the few closely arranged spikelets. Spikelets about 9 mm. long, narrowly lanceolate, somewhat compressed, with 6—8 bracts, the lower sterile, acute or acuminate, the upper 1—4 floriferous, the male florets usually without gynoeceia; the bracts villous towards the apex, the lower fringed with long matted hairs. Supra-floral axis free from the bract, occasionally with an abortive male floret within its terminal bract. Fruit narrowly ellipsoidal, pale, trigonous, shortly stipitate, with a small rather obtuse beak. (Fig. 1 B.)

TYPE. Levyns 8150 (Bolus Herbarium).

HABITAT. Damp places at altitudes from 180 to 1,830 metres.

WORCESTER. Slanghoek mountains: Esterhuysen 18528.

PAARL. Bains Kloof: Esterhuysen 26300.

CAPE. Nursery Gorge, Table Mountain: Esterhuysen 11724. Table Mountain: Esterhuysen 16927.

CALEDON. Palmiet River Mouth: Levyns 8150.

3. *E. gracilis* Levyns Jour. S. Af. Bot. VII, p. 81. Fig. 3 (1941).

A densely tufted perennial up to 90 cm. high. Leaf sheaths with a much reduced lamina or none. Flowering stems slender, wiry, faintly grooved. Lowest bract overtopping the lax inflorescence; spikelets few to several on pedicels of varying length, some very short, others usually long, capillary. Spikelets about 10 mm. long, narrow, the bracts firm in texture; 4—8 sterile bracts at the base, then 1 or 2 with functionally male florets. Supra-floral axis free from the bract. Fruit pale, shining, oblong or ellipsoidal, trigonous, often crowned by the thickened base of the style, seated on a rugose or almost smooth cup-like disc. (Fig. 1 D.)

TYPE. Levyns 7389 (Bolus Herbarium).

HABITAT. Marshy places at altitudes from 300 to 1,670 metres.

CLANWILLIAM. Cedarberg: Esterhuysen 13121; Stokoe 9286. Boontjieskloof, Cedarberg: Esterhuysen 12215. Between Pakhuis and Heuningvlei: Esterhuysen 7457.

CERES. Elands Kloof: Levyns 8096, 8100, 8122, 9241, 9339.

WORCESTER. Slanghoek Mountain: Esterhuysen 16512, 16525. Fonteintjiesberg: Esterhuysen 16694. Du Toits Peak: Esterhuysen 16650. Du Toits Kloof: Esterhuysen 19883. Chavonnesberg: Esterhuysen 14590.

TULBAGH. Twenty-Four Rivers Mountains: Esterhuysen 16204.

PAARL. Suurvlaakte: Esterhuysen 11534, 12337. Wellington Sneeuw-kop: Esterhuysen 12443.

STELLENBOSCH. Jonkershoek: Levyns 7389. Mountains near Stellenbosch: Esterhuysen 12498.

CAPE. Between Bakoven and Llandudno: Esterhuysen 15397.
Kirstenbosch: Esterhuysen 11812, 14389.

CALEDON. Gem Kloof, French Hoek Mountains: Esterhuysen 11416. Genadendal: Stokoe s.n. Shaws Mountain: Levyns 9496.

RIVERSDALE. Langeberg: Esterhuysen 17252.

GEORGE. George: Levyns 10575.

4. *E. dregeanus* (Boeck.) Levyns comb. nov.

Elynanthus dregeanus Boeck. in Linnaea 38, p. 262 (1874). *Tetraria dregeana* C.B.Cl. in Dur. & Schinz Conspect. Fl. Afr. V, p. 661 (1895); Fl. Cap. VII, p. 278 (1898).

When Boeckeler founded *Elynanthus dregeanus* he quoted as his type a specimen collected by Drege but without giving a number or locality. When Clarke transferred it to *Tetraria* in 1895 he cited two specimens, Burchell 7137 and Drege, again without number or locality. Three years later in the Flora Capensis, Clarke gave the additional information that the Drege specimen was Drege 1632a and came from Du Toits Kloof. The present author has seen neither of the specimens quoted in the Flora Capensis but Schlechter 9964 from Michells Pass, in the Bolus Herbarium, was named *Tetraria dregeana* by C. B. Clarke in 1904. This was confirmed by W. B. Turrill in 1924. Abundant material of a species which agrees with Schlechter 9964, has been collected in recent times in places ranging from the Clanwilliam Division in the north to the Paarl Division in the south. Both Drege 1632a and Schlechter 9964 were collected within the area and therefore it is probable that the epithet *dregeanus* may be applied safely to the specimens quoted below. Neither Boeckeler nor Clarke saw the fruit of this species and the spikelets in the material they examined were obviously young. Thus they missed the characteristic prolongation of the axis which characterises the genus *Epischoenus*. The description which follows has been made from the many specimens now available. The drawings depicted in Fig. 2 A and B were made from fresh material of Levyns 9379. Fig. 2 C was made from Levyns 9226.

Epischoenus dregeanus is a western species and it is unlikely that Burchell 7137 from the Langeberg near Riversdale is this.

A glabrous perennial, 20—70 cm. high. Leaf sheath firm, the lamina reduced, up to 10 cm. long, dry and brown when the plants are in flower. Flowering stems terete, erect, slender, rigid, the inflorescence overtopped by the stiff, leafy basal bract. Inflorescence, excluding the bracts, 2—3 cm. long. Spikelets 10—12 mm. long, pale brown, compressed, narrow, 5—8 in a compact inflorescence. Sterile bracts 4 or 5, the lowest acuminate,

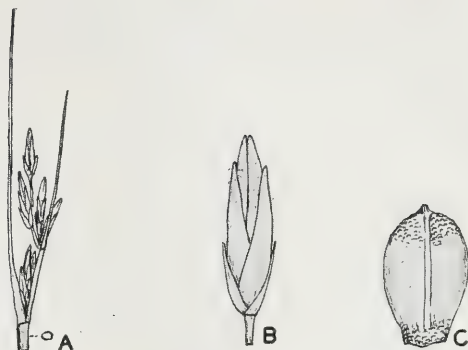


FIG. 2.—*Epischoenus dregeanus*.
 A. Inflorescence. Natural size.
 B. Spikelet. $\times 2\frac{1}{2}$.
 C. Fruit. $\times 10$.

scarious at the tip, the upper somewhat acute. Fertile bracts usually 3, rarely 4. Supra-floral axis adnate to the bract, becoming free a short distance below its own reduced bract. Three small bristles sometimes present outside the stamens in the bisexual floret. Ovary with an obtuse scabrous beak. Fruit obovoid or oblong, obtusely trigonous, olive brown, often with a small button-like apex, minutely tuberculate in the upper part, more or less smooth in the middle and rough near the base.

LECTOTYPE. Drege 1632a.

HABITAT. Marshy places at altitudes from 600 to 1,500 metres.

CLANWILLIAM. Cedarberg Tafelberg: Esterhuysen 13798.

CERES. Elands Kloof: Levyns 8111, 9226, 9322, 9324, 9326, 9329, 9338, 9367, 9379, 9838. Cold Bokkeveld: Esterhuysen 12668. Michells Pass: Schlechter 9964. Michells Peak: Esterhuysen 15146, 15213.

WORCESTER. Waaihoek Mountain: Esterhuysen 8341.

PAARL. Bains Kloof: Esterhuysen 25608. Suurvlaakte: Esterhuysen 11544.

5. *E. adnatus* Levyns Jour. S. Af. Bot. XIII, p. 54. Fig. 1 (1947).

Tetraria gracilis Turrill Kew Bull. p. 73 (1925).

A densely tufted glabrous perennial, 40—130 cm. high, erect or drooping when in deep shade. Leaf sheaths firm; the lamina lacking or minute. Flowering stems slender, wiry, grooved. Inflorescence lax or congested; spikelets few to several, usually exceeded by the lowest leafy

bract. Spikelets linear or lanceolate, compressed, brown, 10 mm. long or less: the bracts obtuse, acute or acuminate. Sterile bracts 5 to 7. Fertile bracts 2 or 3. Supra-floral axis adnate to the bract. Fruit almost globose or ellipsoidal, obscurely trigonous, smooth and shining, sessile, pale brown. (Fig. 1 C.)

TYPE. Esterhuysen 12938. (Bolus Herbarium.)

HABITAT. Damp places at altitudes from 180 to 1,670 metres.

The form occurring at high altitudes on the mountains in the west have spikelets which are broader, shorter and more laxly arranged than those in the east. However, the two forms merge into one another and for this reason no attempt is made to sub-divide the species. *E. adnatus* is closely related to *E. dregeanus* from which it differs in the more slender vegetative parts, the more laxly arranged spikelets and the fruit.

WORCESTER. Milner Peak, Hex River Mountains: Esterhuysen 14863. Du Toits Kloof: Esterhuysen 15679.

PAARL. Above Du Toits Kloof: Stokoe s.n.

STELLENBOSCH. Jonkershoek Twins: Esterhuysen 18489. Jonkershoek: Esterhuysen 15222.

CAPE. Table Mountain: Esterhuysen 12938, 12629, 16809.

MOSSEL BAY. Robinson Pass: Laughton 111 (partly).

GEORGE. Kaaimans River: Wilman (24199 in the Bolus Herbarium).

KNYSNA. Brackenhill Falls: Levyns 7861. Spaarenbosch: Levyns 7868. Noetzie: Levyns 9642.

UNIONDALE. Blaauwbosch Pass: Fourcade 2816. (Type of *Tetraria gracilis* Turill.)

HUMANSDORP. Witte Els Bosch: Fourcade 1374; Esterhuysen 6743. Storms River Bridge: Levyns 10245, 10483.

6. *E. lucidus* (C.B.Cl.) Levyns comb. nov.

Tetraria lucida C.B.Cl. Fl. Cap. VII, p. 759 (1900). *Epischoenus eriophorus* Levyns Jour. S. Af. Bot. XIII, p. 56. Fig. 2 A—D (1947).

A glabrous perennial about 60 cm. high. Lamina of the leaves lacking. Flowering stems fairly stout, terete or somewhat flattened, bearing few to several crowded spikelets clasped by the leafy bracts. Spikelets about 15 mm. long, narrowly lanceolate. Bracts 12—16, all but the 2 or 3 uppermost sterile, the lower acuminate, the upper somewhat obtuse, brown with pale scarious margins, each with an apical tuft of wool, the woolliness extending downwards for a short distance along the margin. Supra-floral axis shortly adnate to the bract. Ovary narrowly ovoid, the apex obtuse, minutely downy. Fruit, according to C. B. Clarke, obovoid, black-brown, crowned by the long pyramidal style base.

TYPE. Schlechter 9987 (Kew).

HABITAT. Damp places at altitudes from 900 to 1,700 metres.

CERES. Prince Alfred: Schlechter 9987. Cold Bokkeveld: Levyns 9362A. Elands Kloof: Levyns 8142.

WORCESTER. Wellington Sneeuwkop: Esterhuysen 26497.

7. *E. complanatus* Levyns sp. nov. (Fig. 3 A—C.)

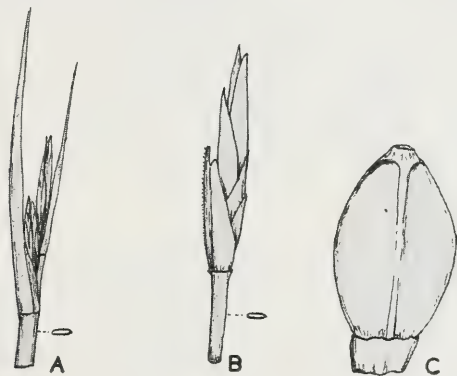


FIG. 3.—*Epischoenus complanatus*.

A. Inflorescence. Natural size.

B. Spikelet. $\times 2\frac{1}{2}$.

C. Fruit. $\times 10$. (Drawn from Esterhuysen 26496.)

Herba perennis caespitosa glabra caulibus complanatis. Folia omnia basalia, lamina nulla vel complanata. Inflorescentia congesta, spiculis erectis. Bractea infima inflorescentia longior. Spiculae 10—14 mm. longae, complanatae. Glumae distichae, 3—4 inferiores vacuae. Flores 2—3, inferiores mares et supremus bisexualis. Rachilla ultima bractea leviter adnata. Nux ellipsoidea trigona fusca lucida, disco amplo.

A tufted glabrous perennial, 20—65 cm. high, with or without green leaves. Leaf sheath laterally compressed; lamina, when present, firm, flat, 4—6 mm. wide, usually shorter than the inflorescence. Flowering stems flattened, similar to the leaves, 3—5 mm. wide, bearing near the apex 2 to 3 leaf-like bracts, the lowest at least longer than the spikelets. Spikelets 10—14 mm. long, pale brown, erect, partly hidden by the sheathing bracts, the pedicels flattened or none. Spikelet with 3—4 acute or somewhat acute sterile bracts at the base, then 1—2 bracts with male florets, finally a bract with a bisexual floret. Supra-floral axis slightly adnate to the bract. Fruit ellipsoidal, dark brown, shining with a small

beak from which 3 ribs run downwards becoming faint below the middle; seated on a pale, well developed disc.

TYPE. Esterhuysen 26496 (Bolos Herbarium).

HABITAT. Damp sheltered places on mountains at altitudes from 900 to 1,850 metres.

TULBAGH. Great Winterhoek: Esterhuysen 19781, 26989.

WORCESTER. Mostert Hoek Twins: Esterhuysen 24267. Chavonnesberg: Esterhuysen 8181. Wellington Sneeuwkop: Esterhuysen 12438, 24366, 26496. Slanghoek Mountains: Esterhuysen 9456, 17776.

PAARL. Witteberg: Esterhuysen 27610. Wemmershoek: Esterhuysen 11575. Paardekop: Esterhuysen 11593.

CALEDON. Moordenaars Kop: Stokoe 9116. River Zondereinde Mountains: Stokoe 2162. Somerset Sneeuwkop: Stokoe 5000. Landrost Kop: Stokoe 2851.

8. *E. cernuus* Levyns sp. nov. (Fig. 4 A—D.)

Herba perennis caespitosa glabra caulibus gracilibus. Folia basalia graminea quam caules breviora. Inflorescentia laxa bracteis foliaceis. spiculis cernuis. Spiculae 8—15 mm. longae. Glumae infimae 6—7 vacuae. Rachilla supra florem bisexualem minuta. Nux oblonga pallida tuberculata stipitata.

A tufted perennial, 40—50 cm. high. Stems very slender, terete, erect. Basal leaves 6—20 cm. long: lamina grass-like, dry curled and wiry by the time the spikelets are mature: sheath pale, splitting almost to the base, leaving weak threads along the torn edges. Flowering stems with several distant nodes, each bearing 1—4 spikelets, nodding on capillary pedicels, the lowest node often without spikelets. Leafy bracts at the nodes erect, slender, the lowest more than half the length of the flowering stem, the upper progressively shorter. Spikelets terminal, solitary or in pairs. Spikelet 8—15 mm. long, pale brown. Sterile bracts 6—7, the lowest shortly aristate, the others acuminate or acute. Fertile bracts 2. Supra-floral axis and rudimentary bract shorter than the ovary, frequently minute. Ovary stipitate, tuberculate in the upper half, with a crown of short hairs at the base of the style. Fruit oblong, scarcely trigonous but with 3 longitudinal ribs, pale brown, stipitate, prominently tuberculate in the upper third, rugose-tuberculate below, becoming almost smooth at the base.

NOTE. This species forms a link between *Epischoenus* and *Tetraria*. The supra-floral axis is here smaller than in any other species and it shows little of the characteristic thickening which occurs after fertilisation in other members of the genus. Its vegetative characters also suggest an affinity with *Tetraria*. However, the supra-floral axis though small,



FIG. 4.—*Epischoenus cernuus*.

A. Part of an inflorescence. $\times \frac{1}{2}$.

B. Spikelet. $\times 2\frac{1}{2}$.

C. Gynoeceium. The range of size of the prolongation of the axis beyond the bisexual floret is shown alongside. $\times 10$.

D. Fruit. $\times 10$.

is invariably present and this feature has been recorded in no species of *Tetraria*.

TYPE. Levyns 8873 (Bolus Herbarium).

HABITAT. Damp sandy places at altitudes from 180 to 1,530 metres.

CLANWILLIAM. Krom River: Esterhuysen 17982.

CERES. Schurftberg Pass: Esterhuysen 17377.

WORCESTER. Witteberg Slanghoek: Esterhuysen 16515.

TULBAGH. Mountains above Twenty Four Rivers: Esterhuysen 21897.

PAARL. Bullers Kop, Drakenstein: Esterhuysen 11907.

STELLENBOSCH. Steenbras: Levyns 8873.

CALEDON. Hangklip Estates: Levyns 9387.

ACKNOWLEDGMENTS.

The author wishes to acknowledge her indebtedness to the University of Cape Town for the facilities provided for research and for access to the plant collection and library of the Bolus Herbarium. She also wishes to thank Mr. E. Nelmes who, through the courtesy of the Director of Kew, verified a matter of typification.